NASA/GSFC/Atmospheric Chemistry and Dynamics



Newsletter No. 13 2012

SHADOZ Notes

Southern Hemisphere Additional Ozonesondes

A NASA public archive of tropical ozonesonde profile data for remote sensing research, model studies and education

Data are public http://croc.gsfc.nasa.gov/shadoz

SHADOZ is a NASA project to augment and archive balloon-borne ozonesonde launches and to archive data from tropical and sub-tropical operational sites. The project was initiated in 1998 by NASA/Goddard Space Flight Center with other US and international co-investigators. There are currently eleven stations launching ozonesondes in the SHADOZ network. The collective



data set provides the first climatology of tropical ozone in the equatorial region, enhances validation studies aimed at improving satellite remote sensing techniques for tropical ozone estimations, and serves as an educational tool to students, especially in participating countries.

Future Meetings that will feature Ozonesondes

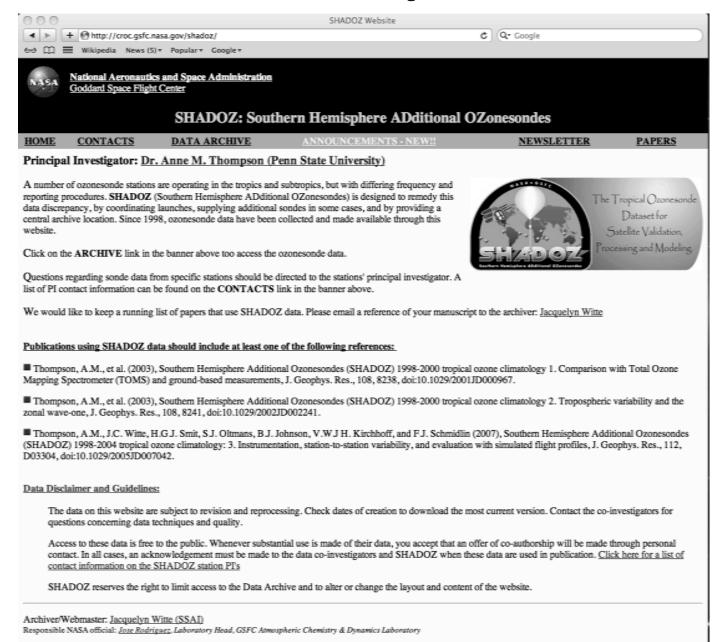
- SPARC/IOC/GAW/NDACC supported ozonesonde workshop, April 12-13, 2012, Greenbelt, MD, USA. This is a group effort to check and improve the quality, homogeneity, and consistency of the global ozonesonde records.
- Quadrennial Ozone Symposium, August 27-31, 2012, Toronto, Ontario, Canada
 - o http://www.cmos.ca/QOS2012/
 - o Scientific themes include, (i) Observations and analyses of total and vertical ozone distributions, (ii) Observation techniques and intercomparisons, and (iii) Tropospheric ozone; past and future budgets and trends and long-range transport.

Past Meetings that featured Ozonesondes

- WCRP (World Climate Research Program) Open Science Conference, Denver, CO USA
 - o http://www.wcrp-climate.org/conference2011/
 - o The C15 session and several others featured SHADOZ.
- NDACC Symposium XX at St Paul, La Réunion Island.
 - o This is a SHADOZ site, at St-Denis!
 - o Registration: http://ndacc2011.univ-reunion.fr

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The SHADOZ website gets a facelift!



New Data Format

A new SHADOZ file format is available since 2012. Version 05 will include more header information and additional data. Version 04 format will remain available on the archive for the 1998 to 2010 or 2011 time period. 1998-2011 has been reprocessed to the new version 05 for almost all stations.

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Irene launch by SHADOZ Co-I Dr. Gerrie Coetzee of South African Weather Service (SAWS). Irene may soon re-join the SHADOZ archive. Soundings were suspended since 2008, resumed in 2011 with support from the South African Weather Service. Many thanks to Co-I Dr. Gerrie Coetzee and his South Africa Weather Service Management team led by Mr. Lucky N. Ntsangwane.

SHADOZ Science Team

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The SHADOZ homepage provides technical information for each station and contact information. The station managers are responsible for the original data processing and should be consulted for details of their methods and appropriates references to their work.

SHADOZ Principal Publications

Thompson, A. M. et al., Southern Hemisphere Additional Ozonesondes (SHADOZ) 1998-2004 tropical ozone climatology. 3. Instrumentation, Station-to-station variability, evaluation with JOSIE-2000 results, J. Geophys. Res., doi:10.1029/2005JD007042, 2007.

Thompson, A. M., et al., Southern Hemisphere Additional Ozonesondes (SHADOZ) 1998-2000 tropical ozone climatology. 2. Tropospheric variability and the zonal wave-one, J. Geophys. Res., 108, 8241, doi: 10.1029/2002JD002241, 2003.

Thompson, A. M. et al., Southern Hemisphere Additional Ozonesondes (SHADOZ) 1998-2000 tropical ozone climatology. 1. Comparison with Total Ozone Mapping Spectrometer (TOMS) and ground-based measurements, J. Geophys. Res., 108, 8238, doi: 10.1029/2001JD000967, 2003.